

AMENDMENT TO CLAIMS

1. (currently amended) A palletizer comprising:

an infeed conveyor delivering serially items for palletizing;

a row conveyor receiving at a first level selected ones of said items as a horizontally disposed row from said infeed conveyor; and

a layer head receiving at a second level selected ones of said items as a-said horizontally disposed row from said row conveyor, said row conveyor and said layer head being reciprocated vertically and independently, said second level being above said first level, said layer head including a set of elongate supports movable between a floor position and an open position.

2. (currently amended) A palletizer according to claim 1 wherein said layer head occupies a space vertically above at least one of a pallet and a stack of layers on a pallet and discharges a layer of items through a floor thereof, said floor including said elongate supports.

3. (currently amended) A palletizer according to claim 2 wherein said floor of said layer head comprises a set of free rollers as said elongate supports and spanning a pair of chains, said rollers being movable between a-said floor position and an-said open position, said open position allowing a layer to drop through a plane corresponding to said floor position.

4. (currently amended) A palletizer according to claim 13 wherein said layer head includes at least one upward facing support surface adjacent said ~~rollers-elongate members~~ when ~~said-rollers are~~ positioned in said floor position.

5. (original) A palletizer according to claim 1 wherein said layer head includes a pivoting dead plate, said dead plate being movable between a generally horizontal position facilitating transfer of a row of items from said row conveyor and a clamping position engaging for compression a layer of said items on said layer head.

6. (original) A palletizer according to claim 1 wherein said layer head includes a pair of side clamps movable inward and toward one another to engage for compression a layer of said items resting on said layer head.

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7. (original) A palletizer according to claim 1 wherein said layer head includes a layer conditioning mechanism compressing together a layer of items resting thereon in at least first and second dimensions.

1.0

8. (original) A palletizer according to claim 7 wherein said first and second dimensions are mutually orthogonal dimensions.

1.5

9. (currently amended) A palletizer according to claim 1 wherein said layer head includes a pair of chains maintained in a generally L-shaped path and carrying thereacross and along corresponding segments thereof a set of free rollers as said elongate supports, said rollers occupying ~~a~~said floor position when located along a horizontal portion of said L-shaped path and occupying ~~an~~said open position when located along a vertical portion of said L-shaped path.

2.0

10. (currently amended) A palletizer according to claim 1 wherein said layer head includes a set of free rollers as said elongate supports movable between ~~a~~said floor position and ~~an~~said open position, said rollers having a length corresponding to a tightly-packed layer resting thereon when said rollers are in said floor position and dropping said layer through a plane containing said floor position when moved to said open position.

2.5

11. (original) A palletizer according to claim 10 wherein said layer head comprises a pair of upward facing support surfaces at respective ends of said rollers when located at said floor position.

12. (currently amended) A method of palletizing comprising:

receiving serially items for palletization;
locating selected ones of said items row-by-row on a vertically reciprocating row conveyor;
moving upward said row conveyor to a height coincident with a layer head;
5 transferring laterally a row of said items from said row conveyor to said layer head while constructing a layer of horizontally disposed rows on said layer head; and
dropping through a floor of said layer head a layer of said items onto at least one of a pallet and a stack of layers resting on said pallet therebelow, said floor comprising a set of elongate supports.

10 13. (original) A method according to claim 12 wherein said method further comprises conditioning by compressing a layer of said items as constructed on said layer head from a loosely packed layer into a tightly packed layer prior to dropping said layer through said layer head.

15 14. (currently amended) A method according to claim 12 wherein said step of dropping comprises moving from a supporting position below said layer a set of rollers as said elongate supports to withdraw support thereof and allow said layer to drop vertically through said layer head.